Team COG

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Overview:

Studying is a vital part of a student’s life in school. It allows students to pass and continue school and it also allows them to learn new things. As a student grows older and their education level rises, teaching styles become different. Kindergarten usually teaches with play time. Grade school teaches via interactivity. Highschool is transitioning to a more academic approach. While College is text based and depending on the course some will be more text based and some will be more interactive than other courses.

That said, studying for a test is a long and tedious process in highschool or college. The student has to read and understand the material they have and confirm that they understand it. The amount of reading or studying material varies from subject to subject which makes it more difficult and tiring. Each student has a different studying style, but most of the material they study is based on what the instructor gave them. But having to go through a plethora of topics across different courses can be stressful, especially exams that tend to schedule themselves next to each other in the same week. Without a clear studying strategy a student will be left anxious not knowing if they studied enough for the test or not.

Solving the Problem:

Because of the struggle of studying, the team proposes an application as a solution. The application should be able to help the user with studying. The user should be able to test their knowledge with a generated quiz that is based only on the notes that the application has. The app also provides “insights” on the notes to further enhance the user’s understanding of the topic. The proposed solution serves as an assurance to the user that they studied enough. Getting the quiz items correct can be assuring when studying.

The Application:

* Application name: ThinkPal
* What it is:

ThinkPal is a smart study companion made for students or anyone who wants to learn better. The user can either write their own notes or upload a PDF file. The app will scan the PDF and turn it into text. After the notes are given, ThinkPal will create quizzes that are based only on those notes. The app also gives helpful insights like summaries and key ideas to make the topic easier to understand. The main goal of ThinkPal is to help users feel confident that they have studied enough by letting them test themselves based on their own materials.

* Features:

The team will have the following features incorporated into the application. Such as:

* + **PDF Upload & Notes:** Users can upload PDF files or manually enter their own study notes directly in the app.
  + **PDF to Text Conversion:** The app will extract and convert text from uploaded PDFs into readable content.
  + **AI Quiz Generator:** Using AI, ThinkPal will generate quiz questions based on the uploaded notes.
  + **Smart Insights:** ThinkPal will provide key points to help users understand their notes and what went wrong on their quizzes.
* Questions about Application:
  + Who are the potential users?

The people who will most likely use ThinkPal are students in high school and college who want an easier way to study. It’s also perfect for those who study on their own, like people taking online courses or reviewing for board exams. Even professionals who need to refresh what they learned for certifications can use it. Basically, anyone who wants to study better using their own notes can find ThinkPal helpful.

* + What tasks do they seek to perform?

The users want to write or upload their notes, turn PDF notes into editable text, get quizzes based only on their own materials, receive summaries or key ideas from their notes, and check quiz results to see what they need to improve.

* + What functionality should any system provide to these users?

The system should let users write notes or upload PDFs, convert those PDFs into text, generate quizzes based only on the user’s notes, give useful insights to explain the topic better, and show quiz results clearly with explanations.

* + What constraints will be placed on your eventual design?

The quiz must only use the user's own notes and no information from outside sources. The PDF scanner should work well with different kinds of file formats. The app should be easy to use and simple to understand. It must also be able to work properly on both phones and desktops.

* + What criteria should be used to judge if your design is a success or not?

The design can be called successful if users feel more prepared after using the app. The quizzes should match the content of the notes well. The note scanning feature should work correctly without mistakes. The insights should really help users understand better. The app should also receive good feedback for being helpful, effective, and easy to use.

* Approach

